

REMARKS

Claims 1-20 were pending. All stand rejected and the action has been made final. The applicant requests further examination and consideration in view of the amendments above and remarks set forth below.

By the above amendments, the applicant has amended independent claims 1 and 20 to include the limitations of original dependent claims 5 and 6. Claims 7, 9 and 11, which were dependent from claim 5, are amended to depend from claim 1. Therefore, the amendment does not present any issues beyond those already raised by claims 5 and 6. Because claims 5 and 6 were previously presented, the amendment does not raise any new issues that would require further consideration and search. Therefore, as stated in the Manual of Patent Examining Procedure (8th Ed, Rev. 2) at Section 714.13, the proposed amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified. As explained in more detail below, all of the claims are now in condition for allowance.

Rejections under 35 U.S.C. § 103:

Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nessett (U.S. Patent No. 5,968,176) in view of Hind (U.S. Patent No. 6,585,778) in further view of Mohaban (U.S. Patent No. 64,63,470).

Prior to the amendments above, claim 5 was dependent from claim 1 and recited that the registry data structure comprises a hierarchy of network types, each type comprising a definition of a network role. Claim 6 was dependent from claim 5 and recited that the network role is representative of a set of applications to be supported by the network. By the above amendment, the limitations of claims 5 and 6 have been incorporated into claim 1 and into claim 20. The applicant respectfully traverses the rejection as it may be applied to amended claims 1 and 20.

In rejecting claims 5 and 6, the examiner stated that claim 1 (from which claims 5 and 6 depended) was met by Nessett in view of Hind. The examiner further stated that neither Nessett, nor Hind, disclose how the security policies are stored. However, the examiner stated that such limitations of claims 5 and 6 are met by Figure 8C of Mohaban. The examiner further stated that it would have been obvious to incorporate the ideas of Mohaban with those of Nessett in view of Hind and add the

hierarchy of types that play network roles and have applications associated with them for organization and ease of looking up and retrieving stored policies.

Nesbett discloses a multi-layer firewall that provides for establishing security in a network. Nesbett, Title and Abstract. Nesbett explains that security is an increasingly important issue for network users. Nesbett, col. 1, lines 12-14. Nesbett further explains that the variety of security features, devices and levels of protocol at which they operate present a significant administrative problem. Nesbett, col. 1, lines 61-64. Thus, Nesbett is directed toward solving the problem of coordinating security policy implementation across multiple layers of network systems. Nesbett, col. 3, lines 15-17. Nesbett provides a solution to this problem by providing a policy definition component for a firewall that accepts policy data that defines how the firewall should behave. Nesbett, col. 3, lines 29-32. Security functions operating in a collection of networked devices across multiple protocol layers are coordinated by the policy definition component so that particular devices enforce that part of the security policy pertinent to their part of the network. Nesbett, col. 3, lines 36-40.

Hind discloses enforcing data policy using style sheet processing. Hind, Title. Hind uses “data policy” to mean procedures and rules used to control access to stored data. In other words, Hind is directed to data security. Hind explains that because of factors resulting from highly distributed networks of applications, devices and users, the need to enforce usage policies using sophisticated techniques has become critical. Hind, col. 1, lines 21-39. Thus, Hind is directed toward the problem of enforcing data security policies in a complex distributed computing environment. Hind, col. 3, lines 46-54.

Thus, Nesbett and Hind are both directed to problems of implementing data security. In contrast, Mohaban is directed to quality-of-service (QoS) treatments of network data traffic flows. Mohaban, Title. Mohaban explains that computer networks include numerous services and resources for use in moving traffic throughout a network. Mohaban, col. 2, lines 38-39. Priority fields for data link frames can specify a particular treatment for the frame, such as background, best effort, excellent effort, etc. Mohaban, col. 2, lines 53-61. Upon examining the priority field, network devices apply the corresponding treatment to the frames; for example, a device may have a plurality of transmission queues per port and may assign frames to different queues on the basis of the frame’s priority value. Mohaban, col. 2, lines 61-67. Similarly, a type of service field for a network layer packet may

be used to specify a particular service to be applied to the packet, such as high reliability, fast delivery, accurate delivery, and whether delay, throughput or reliability is most important for the traffic associated with the packet. Mohaban, col. 3, lines 1-13.

Mohaban explains that current application programs that execute in network devices rarely invoke QoS functions and, therefore, they do not take full advantage of QoS features that are available. Mohaban, col. 4, lines 22-25. Mohaban further explains several other problems with past approaches to QoS, including lack of ability to define QoS policies for traffic flows generated by individual applications, difficulty in defining QoS policies by persons having differing areas of knowledge and expertise, and arbitrary ways of storing and representing policies used to determine QoS treatment of traffic flows. Mohaban, col. 4, line 26 to col. 6, line 42.

To solve these problems, Mohaban proposes a method of integrating a network with policies representing QoS treatments of network data flows. Mohaban, col. 5, lines 48-50. Information structures representing one or more policies representing QoS treatments are created and stored according to a schema. Mohaban, col. 5, lines 50-55. The schema is used to facilitate establishing QoS policies in network devices by creating and storing application information that associates one or more traffic flows generated by an application program, including information identifying one or more points at which an application generates the traffic flows; receiving device QoS information that defines one or more quality-of-service treatments that the network device may apply to data processed by the network device; based on the device QoS information and the application information, determining one or more processing policies that associate the traffic flows with the quality-of-service treatments; and creating and storing one or more mappings of the application information to the QoS treatments that may be used to generate the quality-of-service value when the application program generates traffic flows. Mohaban, col. 5, line 55 to col. 6, line 3.

When applying 35 U.S.C. § 103, the references must be considered as a whole and must suggest the desirability and, thus, the obviousness of making the combination and the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention. Manual of Patent Examining Procedure, Section 2141 (8th Ed., Rev. 2). As is also explained at Section 2141.01(a)

of the Manual of Patent Examining Procedure, to rely on a reference under 35 U.S.C. § 103, it must be analogous prior art.

Here, the Nessett and Hind references relate to data security and are, thus, directed toward restricting access to data by unauthorized persons. In contrast, Mohaban is directed to quality-of-service, which means that it is directed to achieving certain performance, such as throughput or reliability, for selected traffic flows. Because these references are in completely different fields of endeavor, there could not be a motivation to combine them.

The examiner stated Nessett and Hind do not disclose how their *security* policies are stored. (Emphasis added). The examiner further stated that it would have been obvious to incorporate the ideas of Mohaban with those of Nessett in view of Hind for organization and ease of looking up and retrieving stored policies. However, because Mohaban is directed entirely toward solving quality-of-service problems, it cannot provide a hint, teaching or suggestion to use its techniques in data security systems such as Nessett and Hind since they are for an entirely different purpose. In other words, a person attempting to solve a problem encountered in the field of network security would not look to the field of quality-of-service for a solution.

Further, because Nessett and Hind do not disclose how their security policies are stored, they cannot provide any hint, teaching or suggestion use techniques from an entirely different field of endeavor to store the policies. Thus, rather than viewing the references as a whole to determine whether they suggest the desirability of combining them, the examiner is using the applicant's claims as a guide to reconstruct the applicant's invention using impermissible hindsight.

Therefore, it would not have been obvious to combine Nessett and Hind with Mohaban. Accordingly, claims 1 and 20 are allowable. Claims 2-4 and 7-19 are allowable at least because they depend from an allowable base claim 1.

Moreover, the applicant's invention as recited in claims 1 and 20 is directed to network security. As explained above, Mohaban is directed to quality-of-service, which means that it is directed to achieving certain performance, such as throughput or reliability, for selected traffic flows. Because Mohaban is in an entirely different field of endeavor from that of the applicant's invention, Mohaban is not analogous prior art. As such, Mohaban cannot be used to reject the applicant's claims under 35 U.S.C. §103. See Manual of Patent Examining Procedure at Section 2141.01(a).

This is another reason why claims 1 and 20 are allowable and is, thus, another reason why claims 2-4 and 7-19 are allowable.

Moreover, even if the references could be properly combined, they do not disclose all of the limitations of amended claims 1 and 20. As amended, claim 1 recites forming a registry data structure for defining roles within a network, the registry data structure comprising a hierarchy of network types, each type comprising a definition of a network role, the network role being representative of a set of applications to be supported by the network, and mapping network security policies to the registry data structure, said network security policies being contained in one or more policy documents.

As mentioned above, the examiner stated that neither Nessett, nor Hind, disclose how the security policies are stored. Thus, the examiner relies upon Figure 8C of Mohaban for the limitations of original claim 5. Regarding Figure 8C, Mohaban explains that it shows a tree structure which is contained in a QoS policy domain object and is represented by one or more QoS policy domain objects. Mohaban, col. 23, lines 37-40. Policy definitions include one or policy rules partitioned into containers, such as QoS policy domain objects, under a higher level container. Mohaban, col. 23, lines 46-49. Mohaban further explains that each domain may contain a container and that the container class models Roles and serves as a container of Policy Rules in the form of one or more policy rule objects. Mohaban, col. 23, line 57-61.

Thus, while Mohaban discloses a tree structure of quality-of-service policy domain objects, it does not disclose all of the specific limitations of the applicant's original claims 5 and 6, nor has the examiner explained how Figure 8C of Mohaban teaches all of the specific limitations of claims 5 and 6. For example, the applicant's amended claim 1 requires that a network role is representative of a set of applications to be supported by the network. While Mohaban uses the term "Role" in one instance, Mohaban does not provide any teaching or suggestion of what is meant by it (Mohaban also inexplicably capitalizes the term as though it is a proper noun). Therefore, Mohaban does not teach that a network role is representative of a set of applications to be supported by the network as is required by the applicant's claim 1. This shortcoming of Mohaban is even more apparent when one considers that Mohaban is in an entirely different field from that of the applicant's invention.

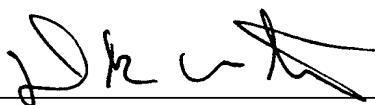
As stated in the Manual of Patent Examining Procedure (8th Ed. Rev. 2), at Section 2143.03, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (Emphasis in original) (citing, *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Because not all of the limitations of claims 1 and 20 are taught or suggested by the prior art, this is yet another reason why claims 1 and 20 are allowable. This is also another reason why claims 2-4 and 7-19 are allowable, being dependent upon an allowable base claim 1.

Conclusion:

In view of the above, the applicants submit that all of the pending claims are now allowable. Allowance at an early date would be greatly appreciated. Should any outstanding issues remain, the examiner is encouraged to contact the undersigned at (408) 293-9000 so that any such issues can be expeditiously resolved.

Respectfully Submitted,

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